

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David Becker et al.

Art Unit: 3768

Serial No.: 10/599,306

Examiner: Vani Gupta

Filed : September 25, 2006

For : ULTRASONIC INTRACAVITY PROBE FOR 3D IMAGING

Hon. Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR §1.132

Dear Sir:

I, John Douglas Fraser do hereby declare as follows:

1. I am a Principal Scientist employed by Philips Healthcare in their ultrasound research and design department in Bothell, Washington. For the past 38 years I have worked in the research, development and design of ultrasound imaging probes and transducers for ultrasound imaging probes, including the past twelve years with Philips Healthcare.

2. I hold a bachelor of science degree in applied physics from the California Institute of Technology and a PhD degree from Stanford University in applied physics, where my thesis topic was "The Design of Efficient, Broadband Ultrasonic Transducers." I am an inventor or co-inventor on 18 issued U.S. patents and have over a dozen patent applications pending in the United States and other countries.

3. I am familiar with the intracavity ultrasound probe of David Becker et al. which is the subject of this patent application. I have reviewed US Pat. 4,007,735 of Magnusson which was cited in this patent application. In my opinion, a designer of intracavity ultrasound probes would find no use for the information in the Magnusson patent and would not consider it relevant to intracavity ultrasound probes. The purpose of an intracavity ultrasound probe such as that developed by Becker et al. is to oscillate an ultrasound transducer back and forth to image the region in front of the transducer. The purpose of the Magnusson cervical vibrator is to deliver physical vibrations at the tip of a vibrating tool. Such vibrations are to be avoided in the design of an ultrasound imaging probe. One of the challenges faced by Becker et al. was to reduce the fluid compartment of an ultrasound probe to as great a degree as practical so that the weight at the tip of the probe would be low, making the probe easier to manipulate during an imaging exam. The challenge which Magnusson said he was facing was to reduce the vibratory sensation to the hand of someone holding a cervical vibrator. These objectives are entirely different. The Magnusson cervical vibrator is pneumatically driven, which is a drive technique we would not consider for an ultrasound probe. As I look at the drawings of the Magnusson cervical vibrator I see no components that I would find useful for an ultrasound imaging probe.

4. In conclusion and following from the above, it is my opinion that one skilled in the art of ultrasound imaging probe design or development would not consider the Magnusson patent or cervical vibrator relevant or useful to ultrasound imaging probes.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


John Douglas Fraser

Date: March 24, 2011